



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/248,980	02/12/1999	NAOTO ABE	862.2678	9424

5514 7590 11/05/2003

FITZPATRICK CELLA HARPER & SCINTO
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

LANEAU, RONALD

ART UNIT	PAPER NUMBER
----------	--------------

2674

28

DATE MAILED: 11/05/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/248,980

Applicant(s)

ABE, NAOTO

Examiner

Ronald Laneau

Art Unit

2674

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 June 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 51-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 51-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

Response to Amendment

1. The amendment filed on 6/23/03 has been entered. Claims 51-57 are still pending.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 51-56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al (US 5,666,132) in view of Chujo (US 5,742,247).

As per claim 51, Ochi et al teach an apparatus comprising a display panel 14 adapted to display an image; a pulse width modulation signal generator 10b adapted to input digital data corresponding to the image and a clock signal ϕ_2 , and to count the clock signal ϕ_2 for the digital data to generate a pulse width modulation signal for driving the display panel 14 (col. 7, lines 10-12); and a clock generator adapted to generate the clock signal ϕ_2 , wherein said clock generator is provided with a memory 10 for storing a plurality of items of data and said clock generator is arranged to generate the clock signal in accordance with one of the items of data read from the memory 10 in synchronism with a reference clock (fig. 1). Ochi et al do not teach generating the clock signal in accordance with one of the items of data read from the memory in synchronism with a reference clock but Chujo teaches a clock signal generating means for generating a clock

Art Unit: 2674

signal which serves as a reference clock signal for writing image data in said memory means (col. 3, lines 24-34 and 44-55).

It would have been obvious to one of ordinary skill in the art to utilize the clock generating means taught by Chujo into the device of Ochi et al because it would provide an improvement in an image processing system which is capable of reproducing an image with high precision due to synchronization of the clock signal.

As per claim 52, Chujo teaches a clock generator comprises a counter for inputting and counting the reference clock signal to supply an address signal of the memory (col. 3, lines 39-42) and a latch circuit for latching the data read from the memory in accordance with the address signal (col. 3, lines 48-52).

As per claim 53, neither Ochi et al nor Chujo teach a clock generator comprises a plurality of flip-flops connected in series for storing the data and outputting the data in series as the clock signal in synchronism with the reference clock signal but it is well known in the art to have a clock generator including flip-flops as claimed because it would generate stable scanning signal by including flip-flops into the clock generation signal.

As per claim 54, the controller 916 taught by Ochi et al is capable of selecting one of a plurality of data for the system as claimed (see fig. 1).

As per claim 55, neither Ochi et al nor Chujo teach an apparatus wherein the data is for performing an inverse gamma conversion but the examiner takes the Official notice that is a well known feature in the graphics display art to utilize a data for gamma inversion as claimed because it would eliminate signal distortion for generating efficiently close approximation. of the pre-distorted signal.

Art Unit: 2674

As per claim 56, Ochi et al teach an image having gradations according to a dithering technique (see abs.). It is understood that the data used in Ochi et al's device would actually improve the tonality of image data at low luminance as claimed.

4. Claim 57 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ochi et al (US 5,666,132) in view of Ono et al (US 6,278,234).

As per claim 57, the same rejection to claim 51 applies. Ochi et al do not teach a display panel comprising a vacuum container which accommodates a substrate on which a plurality of electron sources are provided but Ono et al show that the concept of having a display panel with a vacuum container to accommodate a substrate on which a plurality of electron sources are provided and an image forming member for forming an image by electrons by the plurality of electrons sources is old (col. 1, line 52 to col. 2, line 13).

It would have been obvious to one of ordinary skill in the art to utilize this concept as disclosed by Ono et al because it would provide an image-forming apparatus that is substantially free from degradation with time of the brightness of the image being displayed on it (col. 5, lines 13-17).

Response to Arguments

5. Applicant's arguments filed on 6/23/03 have been fully considered but they are not persuasive.

Art Unit: 2674

Applicant's arguments about Honbo et al not teaching generating a clock signal with one of the items of data read from the memory for storing a plurality of items of data, in synchronism with a reference clock signal are met by the combination of Ochi et al and Arimoto.

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(703) 308-9051, (for formal communications; please mark "EXPEDITED
PROCEDURE")

Or:

(703) 305-308-6606, (for informal or draft communications, please label
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington. VA.,
Sixth Floor (Receptionist).

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ronald Laneau whose telephone number is (703) 305-3973. The examiner can normally be reached on Monday-Friday from 8:30 am to 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Hjerpe, can be reached on (703) 305-4709.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-3900.

Application/Control Number: 09/248,980

Page 6

Art Unit: 2674

Ronald Laneau

Examiner

Art Unit 2674

rl

October 18, 2003



RICHARD WIERPE
SUPERVISOR DIRECT EXAMINER
TECHNOLOGY CENTER 2800